

ACC NR: AT6034614

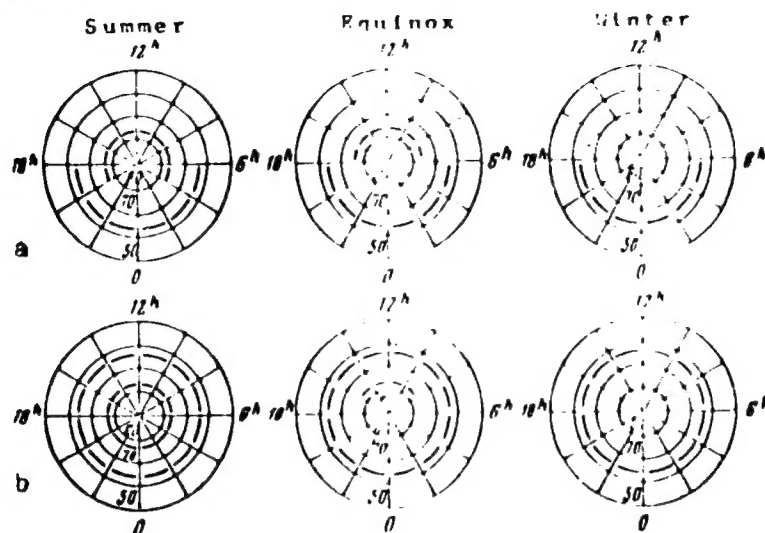


FIG. 1. Positions of latitude zones with maximum magnetic activity in 1954—1959.

a) - Quiet days; b) - disturbed days.

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ACC NR1 AT6034614

equivalent amplitude can be computed using appropriate formulas. The maximum of the mean diurnal activity on disturbed days in summer occurs between the 63rd and 65th and near the 78th parallels. During winter and the equinoxes the maximum appears in the lower latitudes. No maximum appears at the 78th parallel. This distribution holds for the local-time component. The distribution of the maxima is shown in Fig. 1. On disturbed days the maximum activity in the first zone occurs at every hour of the day and night regardless of the season. In the second zone a sharp maximum appears in summer during daylight hours and a weak one in winter and the equinoxes. Both zones are divided by a wide zone of low activity. On quiet days in summer, the maximum activity is predominant in the second zone. Activity zones can be characterized in two ways: maxima distributed by latitude and by the diurnal rate of activity. The first results in annular zones and the second in spirals. Orig. art. has: 4 figures, 1 table, and 5 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

Card 3/3

ACC NR: AT6034615

SOURCE CODE: UR/3148/66/000/008/0102/0104

AUTHOR: Mishin, V. M.

ORG: none

TITLE: On the distribution of geomagnetic disturbances in space and time

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. III razdel programmy NGG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 102-104

TOPIC TAGS: magnetic activity, universal time, geomagnetic latitude, local time component, ~~magnetic equator auroral zone~~, ionospheric conductivity, geomagnetic disturbance

ABSTRACT: Magnetic activity R at a moment t in universal time is a function of two arguments: the geomagnetic latitude and the time. It can be expressed in the form $R = R(\lambda, t)$. The partial derivative $\partial R / \partial t$ determines the distribution of maxima of the local time component of the diurnal rate of magnetic activity. Maxima of the first harmonic of this function represent geometric places of points arranged in spirals. The addition of the second, third, and higher harmonics

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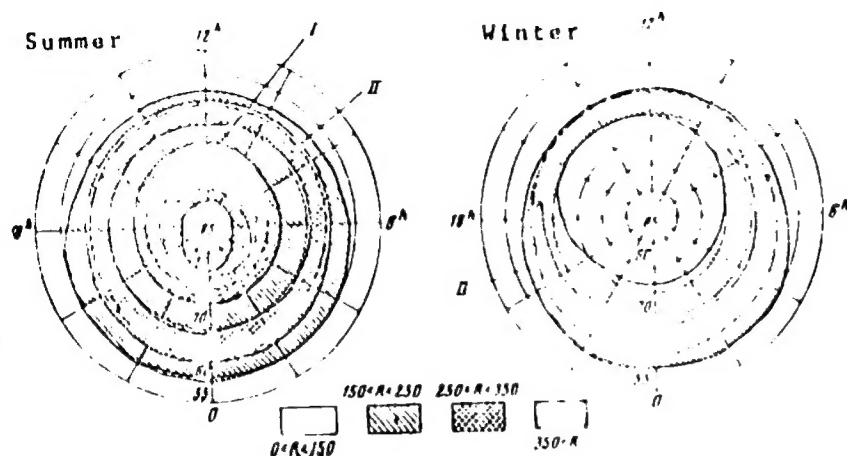


Fig. 1. Belts of equal magnetic disturbances.

yields a set of spirals. The partial derivative $\partial R / \partial \lambda = 0$ determines the distribution of maxima of magnetic activity concerned with the geomagnetic latitude. Fig. 1 shows this distribution in belts depending upon the intensity of magnetic activity. There are three zones of magnetic activity. Zone I lies near the 78th parallel of geomagnetic latitude; zone II is near the 66th parallel; and zone III lies near

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the magnetic equator (not shown in Fig. 1.). In zones I and III the wave of diurnal variations with a noon maximum is predominant. There are two systems of disturbed magnetic currents with maxima in the auroral and equatorial zones which are near zones II and III. Zones of maximum conductivity in the ionosphere coincide with zones I and II. The maximum conductivity in zone II is on the midnight side and in zone I on the daytime side. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 003

Card 3/3

ACC NR: AT6034608 SOURCE CODE: UR/3148/66/000/008/0023/0030

AUTHOR: Mishin, V. M.; Bazarzhapov, A. D.

ORO: none

TITLE: Selection of a spectrum of Legendre polynomials approximating an observed S_q -field

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. III razdel programmy MGU (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 23-30

TOPIC TAGS: orthogonal function, conditional equation, function spectrum, approximate function, geomagnetic field, spheric harmonic, Legendre polynomial

ABSTRACT: A function valid for an interval of values $[a, b]$ can be expressed by the formula

$$Y(x) = \sum_{k=1}^{\infty} d_k Q_k(x),$$

where $Q_k(x)$ is an orthogonal function of the form

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$$\int_a^b G_m(x) \cdot G_k(x) dx = 0$$

when $m \neq k$. This function is given as the result of measurements obtained in a station network consisting of irregularly spaced N stations. The problem of measured results can be solved by the method of least squares if the quadratic difference of the function given and the measured results have a minimum in the system of conditional equations. Coefficients d_k obtained solving the system of equations contain errors which depend upon the spectrum of $Q_k(x)$ functions. When the $Q_k(x)$ functions in the system are not orthogonal, they can be transformed into orthogonal by auxiliary functions in which the coefficients d_k are substituted for a_k . The accuracy of the coefficient a_k is analyzed for the whole station network and a part of the R stations. The optimal spectrum of approximate functions is obtained when the ratio $|\Delta a_k/a_k| < 1$. This condition of approximate functions is applied for determining the approximate geomagnetic field during a quiet sun. Results of measurements of components of the geomagnetic field potential are expressed by sums of spherical harmonics completed with Legendre polynomials. The system of these equations is transformed into a system containing coefficients and

Card 2/3

ACC NR: AT6034608

other orthogonal functions. Analysis of the new system showed that the error of coefficients a_k increases with the increase of the number of stations, and the ratio $\Delta a_k / a_k$ becomes constant after k continues to grow. Orig. art. has: 1 table, 1 figure, and 36 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 3/3

ACC NR: AT6034611

SOURCE CODE: UR/3148/66/000/008/0063/0081

AUTHOR: Bazarzhapov, A. D.; Mishin, V. M.; Nemtsova, E. I.; Troshichev, O. A.

ORG: none

TITLE: Diurnal rate of magnetic activity during the IOY

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. III razdel programmy MOG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 63-81

TOPIC TAGS: magnetic activity, geomagnetic index, current system, magnetic field, solar zenithal distance, universal time ~~component~~, local time component, auroral zone, ~~Geomagnetism~~, geomagnetic disturbance

ABSTRACT: The diurnal rate of geomagnetic activity on perturbed days in 1957—1959 is studied using geomagnetic indices K of 92 observatories which followed the program of the IOY. The study is limited to the diurnal wave of geomagnetic variations and related to local time and universal time. Analysis of the diurnal wave of magnetic variations yielded the following results: 1) The first harmonic of the diurnal wave of equivalent amplitudes of magnetic activity on perturbed

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days is of the fundamental value. 2) Diurnal variations of magnetic activity can be related to both local and universal time. The component of universal time plays an important role in geomagnetic activity of perturbed days at all latitudes. 3) Variations of the component of local time by latitude and season can be represented as a superposition of two waves with maxima at noon and midnight. Phases of these waves do not change with latitude. These waves are analogous to the current system of a disturbed magnetic field. The error amplitude of the local time component attains a maximum at two geomagnetic zones: $\phi = 63^\circ - 67^\circ$ and $\phi \approx 78^\circ$. 4) The superposed waves are physically different. The level of disturbances is proportional to the square root of the cosine of the zenithal distance of the sun. The wave with a maximum at noon is predominant in equatorial and polar regions, and the wave with a maximum at midnight is predominant in the zone $\phi = 63^\circ - 67^\circ$. 5) The component of the universal time of variations consists of two parts, the symmetric and asymmetric, which differ from each other physically. The asymmetric part of the universal time component changes in phase by π in the transition from winter to summer of all latitudes. The error amplitude of the asymmetric part changes with latitude. The amplitude is near zero at middle latitudes and increases toward the auroral zone, being maximum at $\phi = 78^\circ$. The phase of the symmetric part of the universal time component is constant during the year, and the error

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ACC NR: AT6034611

amplitude of this part varies with the latitude like the change of the current system of the disturbed field. 6) The asymmetric part of the universal time component characterizes the magnetic activity during the rotation of the geomagnetic dipole and the distribution of the ionospheric conductivity. The symmetric part characterizes the dependence of the current system upon the eccentric rotation of the dipole. The authors thank V. S. Chesnokova for her help. Orig. art. has: 2 tables, 9 figures, and 32 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 024/ OTH REF: 009

Card 3/3

ACC NR: A17007202

SOURCE CODE: UR/0203/66/006/006/1114/1116

AUTHOR: Korsunova, I. P.; Mishin, V. M.; Ivanov-Kholodnyy, G.S.
Kazachevskaya, T.B.-Kazachevskaya, T.V.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave
Propagation, SO AN SSSR (Institut zemnogo magnetizma, ionosfery
i rasprostraneniya radiovaln SO AN SSSR). Applied Physico Institute,
GUGMS (Institut prikladnoy fiziky GUGMS)

TITLE: Relationship between the electron concentration at altitudes
of 100 and 110 km and disturbances in the Earth's magnetic field

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1114-1116

TOPIC TAGS: ionosphere, ionospheric electron density, *Earth's magnetic field*

ABSTRACT: The effect of magnetic activity on electron concentration n_e at altitudes
of 100 and 110 km in the lower region of the E layer was investigated.
Values of n_e were taken during 36 rocket-borne experiments conducted in the
period 1947-1963 at middle latitudes. The degree of disturbance of the
Earth's magnetic field was estimated from 3-hour values of K-indices. It
was found that the electron concentration at midlatitudes increased as

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UDC: 550.388.2:550.385

ACC NR: AP7002202

magnetic activity increased (i.e., for $K = 3-5$ the electron concentration increased not less than 1.5 times at 110 km, and not less than 2 times at 100 km. It is postulated that for K73 corpuscular streams have an appreciable effect on electron concentration in the lower regions of the ionospheric E layer at midlatitudes.

[WA-03]

SUB CODE: 04 ~~100~~ / SUBM DATE: 22Mar66/ ORIG REF: 007/
ATD PRESS: 5113

Card 2/2

MISHIN, V.M.

Answer to M.S. Babrov's objection to our remarks concerning his article "Overall planetary picture of magnetic disturbances of corpuscular origin." Geomag. i aer. 2 no.5:1012 9-0 '62.

(MIRA 15:10

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Sibirskogo otdeleniya AN SSSR.

(Magnetic storms)

MISHIN, V.N., gornyy inzh.

Mining 261 running meters of crosscuts monthly. Ugol' Ukr. 6
no.5:30 My '62. (MIRA 15:11)
(Donets Basin—Coal mines and mining—Labor productivity)

MISHIN, V. P.

Temperature coefficient of adsorption from solutions
 1. V. P. Mishin and A. N. Karpov. *Colloid J.* 1954, 16, 2, 305-35 (1954). Adsorption isotherms are given for Ca glycerophosphate (I) at 0°, 20°, 50° and 75° and for Ca butyrate (II) at 0° and 75° on birch charcoal activated by heating in dil. HCl for 5 days, and heating at 150°. I has a pos. and II a neg. temp. coeff. as shown by the table. For I the adsorption ratios are about 1:12.

	Ca glycerophosphate				Ca butyrate			
C	7.50	11.75	17.00	23.75	10.0	15.0	25.0	
0°	2.49	1.10	1.32	3.07	12.1	10.1	21.0	
20°	1.07	1.70	1.05	4.32				
50°	3.52	4.17	4.42	4.84	10.5	13.7	19.0	
75°	4.00	4.15	5.05	5.46	9.2	12.5	18.0	

1.35:1.5 and for II 1.0:0.9:0.8. II. V. P. Mishin and E. E. Polchanskaya. *Ibid.* 317-22. Dipropylmalonic ester was obtained by heating 11 g. Na in alk. with 41.5 g. malonic ester and then with 113 g. Pyl or 81.7 g. Pyl for 2 hrs. was used for each. Alk. was boiled off and the aq. soln. extd. with ether, dried and distd. giving 21 g. of ether b. 248-50°. Dipropylmalonic acid was obtained by hydrolysis of 21 g. of the ester by 27 g. KOH in 340 g. alk. boiled for 3 hrs. The aq. soln. was acidified, extd. with ether and crysd. from CHCl₃. Dipropylacetic acid was obtained from the malonic acid by heating at 180-200°.

The yield of Ca salt obtained was 9.5 g. The adsorption isotherms of Ca dipropylacetate were measured at 20°, 50° and 75° on birch charcoal by detn. of the salt left in soln. The ratios of the adsorptions for all concns. at these temps. are about 1:1.2:1.1:1.1. I. H. N.

MISHKIN, V. P.

1963 1

Differential thermograms of silk fibroin. V. P. Mishkin and A. I. Garbuzov (1st Moscow Med. Inst.). Doklady Akad. Nauk SSSR 19, 665-6 (1964).—The differential thermograms of silk fibroin and of natural silk exhibit two endothermic peaks, one of which is of a lower temp., is reversible, and is associated with the loss of sorption H_2O by the fibers; the other is of a high temp., is not reversible, and results from the loss of the fibroin cryst. structure. The thermographic method can be applied in the identification of fibroins of the mulberry and oak silkworms. A lower temp. limit has been established for drying threads of fibroin or strands of silk in the detn. of hygroscopic moisture. B. S. Ledna

Chain Gen. Chem.

USSR/Physical Chemistry - Colloid Chemistry, Dispersion Systems.

B-14

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4048.

Author : V.P. Mishin, N.D. Verderevskaya.

Inst : —

Title : Temperature Influence on Magnitude and Speed of Agar Swelling.

Orig Pub: Kolloidn. zh., 1957, 19, No 4, 472-477.

Abstract: The dependence of the magnitude and speed of agar swelling (S) in water and solutions of salts of the lyotropic series on the temperature T was studied using an automatically recording instrument. If the S process was not complicated with dissolution, the magnitude of S rises with T; in the opposite case, the polytherm $\Delta V_{\infty} = f(T)$ passes through a maximum, which is shifting to the side of lower T at a transition to media, in which the temperature factor of solubility of the swelling substance increases progressively. The speed of S

Card : 1/2

-10-

USSR/Physical Chemistry - Colloid Chemistry, Dispersion Systems.

B-14

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4048.

increases insignificantly with the T rise; the temperature factor of the S speed is close to one and does not depend on the nature of the liquid and the temperature range.

Card : 2/2

-11-

MISHIN, V.F.; VERDEREVSKIY, N.D.

Swelling of high molecular weight substances. Uch.zap. No 1
84.169-180 '59. (MIRA 14:9)

(Macromolecular compounds)

Mishin ✓ ✓

PHASE I BOOK EXPLOITATION

SCV 4288

Garbuzov, Andrey Ignat'yevich, Vasil'y Porfir'yevich Mishin, and Vera Karlovna Tile
Kachestvennyy khimicheskiy polumikroanaliz (Chemical Qualitative Semimicroanalysis)
Moscow, Medgiz, 1960. 230 p. 20,000 copies printed.

Ed.: M.N. Kuvshinskiy; Tech. Ed.: N.K. Zuyeva.

PURPOSE: This book is intended for students of chemical analysis at medical schools and institutes for stomatology.

COVERAGE: The textbook, which reflects the academic program in qualitative semimicroanalysis outlined by the General Chemistry Department of the First Moscow Order of Lenin Medical Institute imeni I.M. Sechenov, covers the theory of qualitative semimicro determination of the chemical elements or compounds constituting a substance or mixture of substances. Both chemical and physicochemical methods are discussed. The first is based on "analytical reactions" (characteristic reactions) of certain reagents while the second is based on the physical characteristics of the determined substance, e.g., absorption spectra, shape and color of crystals, the nature of luminescence under ultraviolet light, melting point, capacity for adsorption on various adsorbents, etc. The textbook also reviews chemical methods of analyzing inorganic substances. The authors thank Professor Ya.S. Przheborovskiy and N.D. Verderevskaya for assistance.

Card 1/10

307 428F

Chemical Qualitative Semimicroanalysis

ance. There are 39 figures and 4 tables. There are no references.

TABLE OF CONTENTS:

Foreword

Introduction

1. The subject matter of analytical chemistry and its significance in science and practical applications
2. Methods of qualitative analysis
3. Main stages in the development of qualitative analysis

PART I. THEORETICAL PRINCIPLES OF QUALITATIVE ANALYSIS

Ch. I. Basic Concepts Concerning Solutions

4. Solutions and the concentration of solutions
5. Solubility and factors on which it depends
6. The law of distribution
7. Colloidal solutions

Test questions and problems

Card 2/ 10

MISHIN, Vasil'y Porfir'yevich, dots.; PRZHEDOROVSKIY, Yaroslav Stepanovich, prof.; GUBAREV, I.D., red.; YAROSLAVTSEV, I.I., tekhn. red.

[Practical work in physical and colloid chemistry for the students of medical and stomatological institutes] Praktikum po fizicheskoi i kolloidnoi khimii; dlia studentov meditsinskikh i stomatologicheskikh inst tutov. Moskva, 1-1 Mosk. med. in-t im. I.M.Seche-
nova, 1961. 52 p. (MIRA 15:1)

(CHEMISTRY, PHYSICAL AND THEORETICAL—LABORATORY MANUALS)

MISHIN, V.P.

"Quantitative chemical analysis for use in chemical and
pharmaceutical laboratories" by W.Autenrieth; 10th edition by
Keller. Reviewed by V.P. Mishin. Vop. med. khim. 7 no. 1:107
Ja-F '61. (MIRA 14:4)

(CHEMISTRY, ANALYTICAL—QUANTITATIVE)
(AUTENRIETH, W.) (KELLER)

ACC NR: AM6021064

Monograph

UR/

Appazov, Refat Fazilovich; Lavrov, Svyatoslav Sergeyevich; Mishin, Vasilii Pavlovich

Ballistics of long-range guided rockets (Ballistika upravlyayemykh raket dal'nego deystviya) Moscow, Izd-vo "Nauka", 1966. 306 p. illus., biblio. 7000 copies printed.

TOPIC TAGS: ballistic missile, ballistics, ballistic trajectory

PURPOSE AND COVERAGE: This book serves as an introduction to the study of the ballistics of long-range missiles. It discusses flight theory and methods of calculating trajectories. The author expresses appreciation to P. P. Karaulov, S. S. Rozanov, and M. S. Florianskiy for their assistance in preparing various paragraphs of the book. There are 13 references, all Soviet.

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Part One. General movement theory

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Ch. II. Forces and moments acting on a missile -- 20

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UDC: 629.191

ACC NR: AM6021064

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- Ch. V. Theory of flight at high altitudes -- 107

Part Two. Ballistic calculations of long-range guided missiles

- Ch. VI. Method of planning the calculation of flight characteristics -- 147
- Ch. VII. Ballistic-computation checking -- 187

Part Three. Dispersion of long-range missiles during firing

- Ch. VIII. Stating the problem -- 213
- Ch. IX. Effect of small disturbance factors on a missile's trajectory. Dispersion calculations -- 219

Part Four. Selecting the trajectory configuration

- Ch. X. Stating the problem of the choice of a program -- 277
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SUB CODE: 16/

SUBM DATE: 21Feb66/

ORIG REF: 013/

Card 2/2

MEL'NIKOV, V.V.; MISHIN, V.S.

Method of measuring the velocity of blood flow in man. Fiziol.
zhur. 46 no.10:1293-1295 0 '60. (MIA 13:11

1. Kafedra fiziologii Meditsinskogo instituta, Khabarovsk.
(BLOOD—CIRCULATION)

MISHIN, V.V., inzh.

Breaking the longwall face by means of blast bore holes. *Usp. V. 5*
5 no.7:22-24. J1 '61. *MIRA 1961*

1. Dnepropetrovskiy gornyy institut.
(blasting) (Coal mines and mining)

MISHIN, V. V.

2/

30v/6098

PHASE I BOOK EXPLOITATION

Assonov, V. A., and L. A. Paporotskiy, Resp. Eds.

Novoye v sredstvakh i sposobakh vzryvaniya (New Developments in
Blasting Means and Methods). Moscow, Gosgortekhnizdat, 1962.
124 p. (Series: Vzryvnoye delo; Sbornik no. 48/5) Errata
slip inserted. 3000 copies printed.

Sponsoring Agency: Nauchno-tekhnicheskoye gornoye obshestvo.

Ed. of Publishing House: A. Ya. Koston'yan; Tech. Eds.: L. I.
Minsker and G. M. Il'inskaya.

PURPOSE: The book is intended for mining engineers, workers
in scientific research and planning organizations, and also
for teachers and students of mining and technical schools.

COVERAGE: This collection of articles describes new blasting
means and methods, means of protecting electric detonators
from stray currents, and improved methods of short-delay
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New Developments in Blasting Means (Cont.)	307/6098
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• Card 5/6

MISHIN, V.V., inzh.

Blast effect on interchamber pillars and roofs. Izv.vys.ucheb.zav.;
gor.zhur. 5 no.9:34-36 '62. (MIRA 15:11)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut
imeni Artema. Rekomendovana kafedroy shakhtnogo stroitel'stva.
(Artemovsk region--Blasting)

MISHIN, V.V., gornyy inzh.

State of strain in pillars and blocks of untouched ore
caused by the action of blasting. Gor. zhur. no.6:40-42
Je '62. (MIRA 15:11)

1. Dnepropetrovskiy gornyy institut.
(Blasting)
(Strains and stresses)

GAYEK, Yu.V., inzh.; DUKOVANYI, M.F., kand. tekhn. nauk; KASHIN, V.V., inzh.

Effect of blasting operations on the stability of mine workings
and the amount of excess broken rock in driving them. Snakht.
stroit. (no. 7:6-7 J1 '62. (MIRA 15:7

1. Dnepropetrovskiy gornyye institut.
(Blasting)

GAYEK, Yu.V.; DRUKOVANY^Y, M.F.; MISHIN, V.V.

Mechanism of rock destruction and calculation of delay intervals in
mining operations. Ugol' 37 no.7:22-25 JI '62. (MIRA 15.7)

1. Dnepropetrovskiy gornyy institut.
(Blasting)

GAYEK, Yu.V.; DRUKOVANNYY, M.F.; MISHIN, V.V.

Proximity coefficient of charges. Vzyv. delo no. 48/5:113-122
'62. (MIRA 15:9)

1. Dnepropetrovskiy gornyy institut.
(Blasting)

DRUKOVANY, A.F., Kand. tekhn. nauk; Mikhlin, V.V., inzh.; KAYsh. Yu. V., inzh.

shattering of rocks in instantaneous and short-delay
firing. Vopr. delo no. 50/7:31-44 '64. (MIRA 15:9)

1. Dr. Propetrovskiy (gornyy institut imen. Artyoma.
blasting)

DRUKOVANYI, M.F., kand.tekhn.nauk; GAYEK, Yu.V., inzh.; MIB " ", V.V.

Effect of fracturing on the nature of rock shattering
by blasting. "Zryv. delo no.50" :98-104 :6. (MIRA 15:1)

1. Dnepropetrovskiy gosy. institut im. Artema.
(blasting) rocks

BELAYENKO, F.A., prof., doktor tekhn. nauk[deceased]; GAYEK, Yu.V.,
kand. tekhn. nauk; MISHIN, V.V., kand. tekhn. nauk

Study of stress fields in breaking rocks with column
charges. Varyv. delo no.51/8:77-85 '63. (MIRA 16:6)

1. Dnepropetrovskiy gornyy institut.
(Blasting) (Strains and stresses)

GAYEK, Yu.V., kand. tekhn. nauk; DRUKOVANYI, M.F., kand. tekhn. nauk;
MISHIN, V.V., kand. tekhn. nauk

Speed of the development of fractures in rocks and solid bodies
and methods of measuring it. Vopr. delo no.51/8:85-96 '63.

1. Dnepropetrovskiy gornyy institut.
(Blasting)

PORT. Y. ... M. ...
... V.A.

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...
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AUTHORS: Shchukarev S.A., Yakimov M.A. Mishin, V.Ya. 78-3-7-34/44

TITLE: Investigation of the Solubility in the System $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$ at 25° (Issledovaniye rastvorimosti v sisteme $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$ pri 25°)

PERIODICAL: Zhurnal neorganicheskoy khimii. 1958. Vol 3. Nr 7. pp 1661-1664 (USSR)

ABSTRACT. Investigations of the solubility of cesium in a nitric acid solution by means of radiometric methods were carried out by the application of radioactive cesium Cs^{134} . Determination of solubility was carried out at $25 \pm 0.05^\circ \text{C}$ in the course of 3.5-4 hours. In a concentrated nitric acid solution ($d_4^{15} = 1.43\text{-}1.50$) the acid salt was obtained with a composition of $\text{CaNO}_3\text{-HNO}_3$. The stability of this acid salt is between 0° and 50°C . With an increase of temperature the quantity of this salt decreases. From a 96% nitric acid solution the compound $\text{CaNO}_3\text{-HNO}_3$ is formed at low temperatures. There are 2 figures, 3 tables and 7 references, 2 of which are Soviet.

Card 1/2

Investigation of the Solubility in the System
 $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$ at

78-3-7-34/44

SUBMITTED: June 8 1967

1. Calcium-Solubility in the
Compounds--Anhydrous

Investigation of the Solubility in the
and positive--Applications

Card 2/2

21(8)

AUTHORS:

Guldamashvili, A. I., Dmitriyev, P. P. SOV/89-5-6-117
Krasnov, N. N., Mishin, V. Ya.,
Khaprov, Ye. N.

TITLE:

The Production of the Isotope As^{74} by Means of a Cyclotron
(Polucheniye izotopa As^{74} na tsiklotrone

PERIODICAL:

Atomnaya energiya, 1958, Vol 5, Nr 6, pp 560 - 561 (USSR,

ABSTRACT:

As^{74} was obtained by the irradiation of metallic germanium with the external 10.8 MeV deuteron beam of the cyclotron (Ref 5).
The characteristic feature of the target was the fact that the cooling water immediately reached the inner surface of the irradiated germanium plate. The germanium plate was cast in a vacuum and was then ground to the dimensions 170.40.4 mm. The deuteron beam (60-70 μA) is limited by a shutter so that only a surface of 150.25 mm^2 of the germanium was irradiated. The water consumption was 5 l/m.
Chemical separation was carried out as follows: After the irradiated sample had been boiled twice for 15 to 20 minutes in aqua regia, about 97-98 % of the activity had dissolved.

Card 1/3

The Production of the Isotope As^{74} by Means of
a Cyclotron

SCV 89-5-5-1

The solution was steamed-in and extracted with 11 n HCl (method according to reference 6). The arsenic carrier used weighed 50 μ g. Concentration of the arsenic isotope was carried out by the Marsh method (arsenic hydride). The two preparations, which were enclosed in an ampoule of 0.6 cm³, had an initial activity of 60 mCi. The As^{74} activity was measured by comparison with a Co^{60} source by means of the micro roentgenometer of the type "Kaktus" 30 days after irradiation. The total yield obtained by the formation of As^{74} was:

$25 \mu C / \mu A \cdot h \pm 15 \%$. The half time was: $T_{1/2} = 18.4 \pm 0.4$ d.

Professor B. S. Dzhelepov, I. P. Selinov, and Ye. Ye. Baroni interested themselves in this work. M. Z. Maksimov calculated the yield curve. Yu. A. Bliodze and I. I. Zhivotovskiy assisted in carrying out experiments. There are 2 figures and 10 references, 3 of which are Soviet.

Card 2/3

The Production of the Isotope As^{74} by Means of
a Cyclotron

SCV, n. 1

SUBMITTED: September 13, 1958

Card 3/3

ARTICLE:

Author: Ye. P. Dznelepov, B. S. ...
 ...
 ...
 ...

TITLE:

Radiation From As⁷⁴ ...

INSTITUTION:

Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya ...
 Vol. 1, No. 1, pp. 431-438 (1974)

ABSTRACT:

In December 1973 the authors obtained a radioactive preparation of As⁷⁴ (t_{1/2} = 17.8 min) with a good specific activity. The characteristic features of its decay were examined and compared with data from the literature. First the production of the isotope is described. This As⁷⁴ was produced by a bombardment of copper with alpha particles with an energy of 10.6 MeV. The results of the measurements of the alpha and beta spectra are presented. It is proved that the ground state of As⁷⁴ is of an 1/2⁺ type. After the "ground" state is extracted the alpha and beta spectra are presented. In the back-ground of the alpha spectrum the K_α and K_β emission-lines of the transitions of As⁷⁴ and As⁷⁶ are clearly marked. The K_α line is, without doubt,

Card 1/4

radiation from As⁷⁴

7/28-22-7-15 '26

a transition of the type $2^+ \rightarrow 0^+$. With the $h\nu = 100$ keV transition, which is connected with the positron emission, conditions are more complicated, as the proportion of the K-capture must be known in order to be able to determine a_1 . Two methods for the determination of a_1 are given. The spectrum of the γ -radiation of As⁷⁴ was investigated by means of the recoil electrons. The relative intensity of three γ -lines was investigated with an equipment of a better resolution. The annihilation line, at $h\nu = 511$ keV and the 635 keV line, with the help of an equipment of a lower resolution, but of a enormous intensity amplified by the hundredfold, attempted to find harder γ -lines in the radiation of As⁷⁴. The decay energy in the transmutation from As⁷⁴ $\rightarrow$ Ge⁷⁴ gives rise to the assumption that the levels of Ge⁷⁴ are excited up to those of 2500 keV. Actually in the spectral range of 1200 keV a pronounced super-elevation of the counting rate above the quiet background connected with the softer lines was observed. The intensity of this line is smaller by a factor of 220 than that of the annihilation line. It is assumed that in Ge⁷⁴ the second level of excitation probably has an energy of 1200 keV. If this is true, it should be expected that a transition from the second level to the first level

Card 2/4

Transition from ^{214}Po

about 100 keV exists and that this level forms a part of the ^{214}Po line. The ramifications in the decay scheme of ^{214}Po are investigated. In the last chapter some remarks concerning the individual levels are given. As regards the version of the transition at $\Delta E = 106.5$ keV of ^{214}Po it is shown that in this transition the ratio is $K/\beta = 1/2$. In the investigation of the ratio K/β in the ^{214}Po decay to the level at 106.5 keV of ^{214}Po it is shown that the ratio K/β for this transition is normal. The level at 106.5 keV of ^{214}Po is probably a second vibration level with the characteristic 2. The second excited level of ^{214}Po is at near 1400 keV and is of the type 2.

N. M. Isayev, I. F. Selinov, Ye. Ye. Baroni, Ye. N. Khorosheva and their team collaborated in the work. There are 10 figures, 4 tables, and 11 references, 8 of which are Soviet.

Fig. 3.4

Chemical Electron Spectroscopy

1977, 1978, 1979

amounts during measurement and to compute the ratio of their yields in the nuclear reaction. The authors expressed their gratitude to B.M. Isayev, I.I. Selishev, Ye.Ye. Paronik and Ye.N. Kharin. There are 3 figures, 1 table and 2 references, 1 of which are Soviet.

ACC CIA I.N.

Na. M. Isayev, I. I. Selishev, Ye. Ye. Paronik and Ye. N. Kharin. A.A. Kharinova (Sole Author Research Institute of Chemistry at the Leningrad State University, Leningrad, A.A. Kharin)

3 of 3

S/078/63/008/001/021/026
B189/B101

AUTHORS: Yakimov, M. A., Mishin, V. Ya.

TITLE: Solubility in the system CsNO_3 - HNO_3 - H_2O at temperatures of 0, 35, and 50°C

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 226 - 230

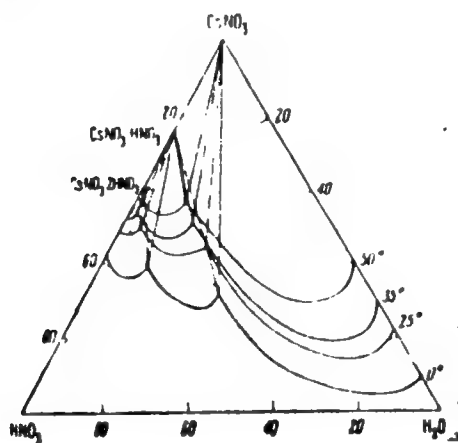
TEXT: Mixtures of CsNO_3 - HNO_3 - H_2O were prepared in different concentrations at 0, 35, and 50°C and analyzed according to Schreinemakers. Analogous studies were carried out at 25°C to define previous data more exactly. The results were used to plot the solubility isotherms (Fig. 1). In view of the cesium ion being able to reduce HNO_3 dissociation, and of HNO_3 tending towards polymerization, the formula $\text{Cs}[\text{HNO}_3 \cdot \text{NO}_3]$ is suggested for the solvate $\text{CsNO}_3 \cdot \text{HNO}_3$, and $\text{Cs}[(\text{HNO}_3)_2 \cdot \text{NO}_3]$ for $\text{CsNO}_3 \cdot 2\text{HNO}_3$. The formation of complexes having the form $\text{M}[\text{HNO}_3 \cdot \text{NO}_3]$ and $\text{M}[(\text{HNO}_3)_2 \cdot \text{NO}_3]$ is discussed. There are 2 figures and 1 table.

SUBMITTED: March 23, 1962
Card 1/2

Solubility in the system...

S/078/63/008/001/021/026
B189/B101

Fig. 1. Solubility isotherms of the system $\text{CaNO}_3\text{-HNO}_3\text{-H}_2\text{O}$ at 0, 25, 35, and 50°C. (The compositions of the solutions are expressed in % by weight).



Card 2/2

YAKIMOV, M.A.; MISHIN, V.Ya.; GOLOVA, L.F.

Solubility in the system TlNO_3 - HNO_3 - H_2O at 0 and 25°C.
Zhur. neorg. khim. 8 no.6:1470-1472 Je '63. (MIRA 16:6)

(Thallium nitrate) (Nitric acid)
(Solubility)

L 36777-65
ACCESSION NR: AP4043853

8/0186/64/006/004/0454/0459

4
B

AUTHOR: Yakimov, M. A.; Mishin, V. Ya.

TITLE: A study of heterogeneous equilibria in the ternary system uranyl nitrate - nitric acid - water. Part I. Solubility isotherms of the system uranyl nitrate - nitric acid - water at 25, 35 and 50C

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 454-459

TOPIC TAGS: heterogeneous equilibrium, solubility isotherm, uranyl nitrate, nitric acid solution, uranyl nitrate disolvate

ABSTRACT: The isothermal method was used to study the solubility of uranyl nitrate in nitric acid solutions at 25, 35 and 50C. In this study, uranyl nitrate was determined gravimetrically in the usual way (precipitation of ammonium diuranate which yields uranium oxides on heating), nitric acid was determined by titration with NaOH after binding the U with ammonium oxalate, and water was determined by difference. The solubility isotherms constructed for these 3 temperatures (see Fig. 1 of the Enclosure) consist of 4 branches, corresponding to the solubility of

Card 1/3

L 36977-65

ACCESSION NR: AP4043853

uranyl nitrate hexahydrate, trihydrate, dihydrate and disolvate ($UO_2(NO_3)_2 \cdot 2HNO_3$) respectively. The latter compound, which has not previously been described in the literature, was isolated in pure form and its composition determined. "V. N. Mikhaylov took part in the experimental work." Orig. art. has: 3 tables, 1 figure and 1 formula.

ASSOCIATION: None

SUBMITTED: 17Dec63

NO REF SOV: 004

ENCL: 01

SUB CODE: IC

OTHER: 006

Card 2/3

L 36977-65
ACCESSION NR: AP4043853

ENCLOSURE: 01

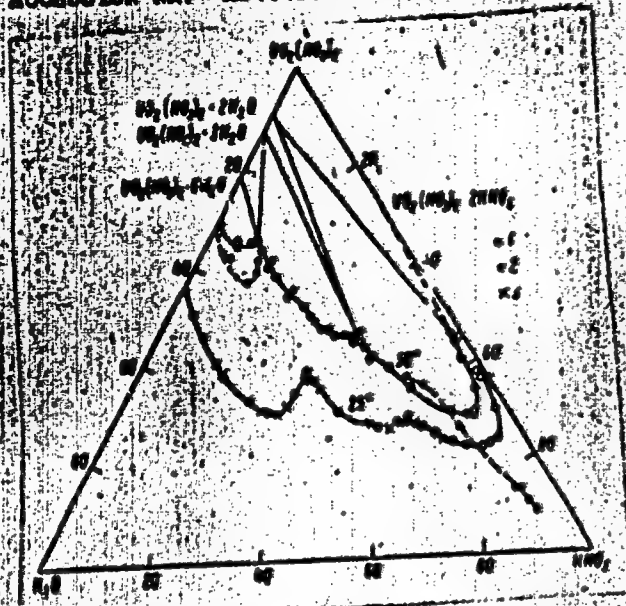


Figure 1. Solubility isotherms of the system $K_2(NO_3)_2 - HNO_3 - H_2O$ at 25 and 50C (compositions expressed in wt.%). 1 - authors' data; 2 - data of Gaunt et al. (Canad. J. Chem., 41, 527, 1963); 3 - data of Colani (Bull. Soc. Chim. France, 39, 4, 1243, 1926).

Card 3/3

1. V. V. M.A., MISHIN, V.Yu.

heterogeneous equilibria in the ternary system H_2O , HNO_3 , CH_3COOH
Phase diagram and calculation of the binary system
 HNO_3 - H_2O at 25.0°C and 101.3 kPa. Radiat. Meas. 1986, 21, 101-104.

171111 W, M.A., MURIN, V.Ya.; FILIPOV, V.K.

Heterogeneous equilibria in the ternary system
 $\text{H}_2\text{O} - \text{HNO}_3 - \text{H}_2\text{O}$ Part 3: Solution - values of the
binary system $\text{H}_2\text{O} - \text{HNO}_3$ at 25 and 50°C. Radiations and
5.8.55. 10.

Part 4. Solution-vapor equilibria of nitric acid-water at 25 and 50°C.

YAKIMOV, M.A.; MISHIN, V.Ya.

Heterogeneous equilibria in the ternary system $\text{UO}_2(\text{NO}_3)_2 - \text{HNO}_3 - \text{H}_2\text{O}$.
Part 1: Solubility isotherms of the system $\text{UO}_2(\text{NO}_3)_2 - \text{HNO}_3 - \text{H}_2\text{O}$ at
25, 35, and 50°C. Radiokhimiya 6 no.4:454-459 '64. (MIRA 181.)

ACC NR: AP7006252

(A)

SOURCE CODE: UR/0079/67/037/001/0280/0280

AUTHOR: Kirin, I. S.; Moskalev, P. N.; Mishin, V. Ya.

ORG: Physicotechnical Institute imeni A. F. Ioffe, Academy of Sciences, SSSR
(Fiziko-tekhnicheskii institut Akademii nauk SSSR)

TITLE: Synthesis of phthalocyanines of certain heavy metals

SOURCE: Zhurnal obshchey khimii, v. 37, no. 1, 1967, 280

TOPIC TAGS: uranium compound, thorium compound, hafnium compound, antimony compound, bismuth compound, phthalocyanine

ABSTRACT: Phthalocyanines of uranium, thorium, hafnium, antimony and bismuth were synthesized from o-phthalonitrile and acetates of UO_2^{2+} , Th^{4+} , Hf^{4+} , Sb^{3+} and Bi^{3+} at 250-300°. The absorption spectra of the products of the synthesis reaction showed several bands at 640-799 mμ, which indicate the formation of various forms of phthalocyanines. For instance, three absorption bands with peaks at 644, 659 and 694 mμ were found in a benzene solution of the product of the synthesis of uranium phthalocyanine. Chromatography on Al_2O_3 was used to separate a form of uranium phthalocyanine characterized by a single strong absorption band in benzene at 644 mμ. From a benzene solution of the raw reaction product resulting from the reaction of synthesis of uranium phthalocyanine, ethyl ether "salted out" a compound having a band with a peak at 693 mμ. In the remaining solution, a single absorption band with

Card 1/2

UDC: 547.584

ACC NR: AP7006252

a peak at 643 mμ was observed. The absorption peaks for the reaction products of phthalocyanines are as follows: 646 and 695 mμ for thorium, 632, 665 and 698 mμ for hafnium, 642, 659 and 706 mμ for bismuth, and 670 and 690 mμ for antimony. The spectra of thorium and hafnium were taken in benzene, and those of antimony and bismuth in dimethylformamide. The observed variety of the forms of heavy metal phthalocyanines is apparently due to the formation of complexes with more or less intricate structures, as well as to the variable valence of the complex-forming reactants.

SUB CODE: 07/ SUEM DATE: 22Jul66

Card 2/2

TSYURUPA, I.I., Inzh; MISFD, Ye.M., Inzh.

Calculation of pile foundations for deep-sea moorings. Transl.
strof. 14 no.9:28-30 1974 (1974, 1974)

3/123/59/000/006/ - 4
A005/A001

1 2100

Translation from Referativnyy zhurnal, Mashinostroyeniye, 1958, No. 4

20212

AUTHORS

Mishin, Ye. V., Pridantsev, S. A.

TITLE

Comparative Investigations of Steels for Bolts of Hot Connections in Aircraft

PERIODICAL

Tr Kazansk. aviats. in-ta, 1958, Vol. 41, pp. 55-60

TEXT

Physicomechanical comparative investigations were carried out on three brands of steel 30XГСА (30KHGSA), X18H11B (Kh18N11B) and 18KHBA (18KHBA). The effect of repeated heating was determined at 500°C on α_k , as well as the effect of the test temperature (20-650°C) on σ_b , δ , ψ , α_k , the linear expansion coefficient, and the strength of the bolts at expansion with skewing. It is recommended, on the basis of the data obtained, to use steel 18KHBA for bolts operating at high temperatures.

Translator's note

This is the full translation of the original Russian abstract.

Card 1/1

DRAIUK, Boris Naumovich; SINAYSKIY, German Vladimirovich. Prinsipali
uchastnye: MISHIN, Yu.A., inzh.; VINOGRADOV, L.G., inzh.;
VINOGRADOVA, S.I., inzh.; VOROB'YEV, S.A., retsenzent; SYRCHINA,
M.M., red.izd-va; TURKINA, Ye.D., tekhn.red.

[Strip thickness regulator on a continuous cold rolling mill]
Regulator tolshchiny polosy na nepreryvnom stane kholodnoi
prokatki. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po cherno
i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1961. 76 p.
(MIRA 14:6)

(Automatic control) (Rolling (Metalwork))

FAYZULLIN, V.Kh.inzh.; KASHINTSEV, V.V., inzh.; Prinsipal'ny uchastnye:
MISHIN, Yu.A.; VINOGRADOV, L.G.; VINOGRADOVA, S.I.

Method of reducing thickness variations in cold-rolled strip.
Stal' 22 no.3:249-252 Mr 162. (AIA 15:3)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Rolling (Metalwork)) (Automatic control)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6"

MISHIN, Yu.L.

Design of buffer amplifiers using electron tubes. Izv. vys.
ucheb. zav.; radiotekh. 5 no.3:396-399 My-Je '62. (MIRA 15:9)

1. Rekomendovano kafedroy rascheta i konstruirovaniya
radioapparatury Ryazanskogo radiotekhnicheskogo instituta.
(Amplifiers, Electron-tubes)

Translation from: *Periodicheskii zhurnal khimii*, 1977, No. 1, p. 100.

AUTHORS: *Yu. A. Izrael, V. I. Izrael, V. I. Izrael, V. I. Izrael*

TITLE: *On the Microchemical Detection of Copper in the Presence of Lead*
reaktsiya na ion Pb^{2+}

PERIODICAL: *Tr. Vsesoyuznogo nauchno-issledovatel'skogo instituta khimii*, 1977, No. 1, p. 100.

ABSTRACT: A new microchemical reaction for Pb^{2+} employing Na_2S in H_2SO_4 solution was studied. It combines with Pb^{2+} in the presence of Na_2S to form a precipitate. A solution of I in H_2SO_4 reacts with Na_2S to form a precipitate containing $\leq 10^{-4}$ g Cu/g. A blue tint is all that appears when the concentration is greater (10^{-3} - 10^{-2} g/g), a dark blue, fine, precipitate comes down at once. The coming down of the precipitate from solutions may be promoted by addition of solid, fine-ground K_2CrO_4 . Pb , Pb , Ag , and Hg act as inhibitors. Centrifuging and settling for Cu in ores, minerals, and various and non-ferrous alloys. To determine Cu in steels, the Pb has to be bound to lead. The limit of Cu that can be detected is 10^{-5} g/g. 10 min are required to analyze 1 g.

1. Copper ions - detection
2. Copper ions - detection
3. Copper - Determination

Card 1/-

MISHINA, A.K.

Work of the Production and Technical Council of the Yenakiyevo
Bread Combine of the Stalino Bakery Trust. Khleb.1 kond.prom. 1
no.7:37-39 J1 '57. (MIRA 10:7)

1. Yenakiyevskiy khlebokombinat Stalinskogo tresta khlebopecheniya.
(Yenakiyevo--Bakers and bakeries)

VLADIMIROV, V.I.; SHABADASH, A.N.; KANDZAS, P.P.; MISHINA, A.N.

Method for speeding up the polymerization of styrene in the
manufacture of optical lenses. Plast.massy no.3:71-73 '60.
(MIRA 13:6)

(Styrene) (Lenses)

MISHINA, A.P.

Mishina, A. P. On complete direct sums of Abelian groups of the first rank without torsion. Ukrain. Mat. Zhurnal 2, no. 4, 64-70 (1950). (Russian)

A group with the decomposition described in the title is completely decomposable (that is, representable as an ordinary direct sum of groups of the first rank) if and only if the number of summands (of the complete direct sum) which are distinct from the additive group of all rational numbers is finite.

R. A. Good (College Park, Md.)

Source: Mathematical Reviews,

Vol

13

No

10

Mathematical Reviews
Vol. 15 No. 3
March 1954
Algebra

7-13-54
LL

3
Misina, A. P. Some conditions for splitting of mixed
Abelian groups. Ukrain. Mat. Zhurnal 3, 218-232 (1951).
(Russian)
[For reference, see Baer, Ann. of Math. (2) 37, 766-781
(1936).] Let A be a mixed abelian (additive) group with
maximal periodic subgroup F ; let $\mathfrak{I}^* = A/F$; let F_1 be the
primary component of F for the prime 2. The problem is to
investigate what conditions will insure the converse of the
result: if A splits (that is, if $A = F + \mathfrak{I}$, where $\mathfrak{I} \cong \mathfrak{I}^*$), then
every pair of automorphisms, one of F and the other of $\mathfrak{I}^*$,
is induced by a suitable automorphism of A . Denote by
 ψ_0 the automorphism of F which maps each element into its
negative. The group A splits if and only if A has an auto-
morphism ϕ which induces ψ_0 in F , which induces the iden-
tity map in $\mathfrak{I}^*$, and which furthermore satisfies the con-
dition that for each $a \in A$, there exists $f \in F$ such that
 $\phi(a) = a + 2f$. The author studies various restrictions im-
posed on either F or $\mathfrak{I}^*$ which yield assertion (E): if the
pair of automorphisms, ψ_0 of F and the identity map of $\mathfrak{I}^*$,
is induced by an automorphism of A , then A splits. For
example, if $\mathfrak{I}^* = 2\mathfrak{I}^*$, then A satisfies assertion (E). If F_1
is zero, then A satisfies (E). Indeed, the general problem
may be reduced to the case $F = F_1$. If $\mathfrak{I}^*$ has finite rank and
if $F = F_1$, then A satisfies (E). If $D(\mathfrak{I}^*)$ exists [cf. Baer's
Definition 3; 2] and if $F = F_1$, then A satisfies (E). Other
sufficient restrictions are also presented. R. A. Good

USSR/Mathematics - Modern Algebra, Jul/Aug 52
Isomorphism

"Isomorphism of Full Direct Sums of Abelian Groups Without Torsion of Rank 1," A.P. Mishina, Moscow

"Matemat Sbor" Vol XXXI (73), No 1, pp 118-127

Demonstrates that the assertion actually holds true in the following problem posed by A.G. Kurosh: It is correct to assert that for each type s the isomorphism of groups G and G_1 (direct sums of Abelian groups without torsion of rank 1) implies the

isomorphism of their subgroups, which are the full direct sum of all those components R_a of group whose type equals s ? Cites R. Baer, "Abelian Groups Without Elements of Finite Order," Duke Math Jour, 3, 1937, 68-122. Submitted 8 Feb 52.

220778

MISHINA, A.P.; PROSKURNYAKOV, I.V.; LYUSTERNIK, L.A. red.;
YANPOL'SKIY, A.R. red.; RASHEVSKIY, I.K. red.;
LATYSHEV, V.N. red.; FLAKSHE, L.Y. red., tekhn. red.

[Higher algebra; linear algebra, polynomials, universal
algebra] Vysshaya algebra; lineinaya algebra, mnogochleny,
obshchaya algebra. Pod red. I K. Rashevskogo. Moskva, Fiz-
matgiz, 1962. 209 p. (Algebra) (MIRA 15:9)

... A.I.; ...
I.A., ...

[higher ...;
algebra ...;
certain ...]

MISHINA, A.P.

Direct summands of total direct sums of torsion-free Abelian
groups of rank 1. Sib.mat.zhur. 3 no.2:244-249 Mar-Apr '62.
(MIRA 15:4)

(Abelian groups) (Groups, Theory of)

MISHINA, A.P.

Automorphisms and endomorphisms of Abelian groups. Vest. Mosk.
un. Ser. 1: Mat., mekh. 17 no.4:39-43 J1-Ag '62. (MIRA 15:7)

1. Kafedra vysshey algebry Moskovskogo universiteta.
(Abelian groups)

MISHINA, A.P. (Moskva)

Separability of complete direct sums of torsionless Abelian
groups of rank 1. Mat.sbor. 57 no.3:375-383 J1 '62.
(MIRA 15:8)

(Abelian groups)

MISHINA, A.P.

Separability of complete direct sums of Abelian groups of the
first rank without torsion. Dokl. AN SSSR 143 no.2:275-
276 Mr '62. (MIRA 15:3)

1. Predstavleno akademikom P.S.Aleksandrovym.
(Abelian groups)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6"

BOGACHEV, A.I., kand. tekhn. nauk; KOVALEVSKIY, M.F., inzh.; MISHINA, A.S.,
inzh. (g. Tuapse).

Organizing uninterrupted crossing at stations built according to
a parallel system. Zhel. dor. transp. 40 no.2:71-73 P '58.

(Railroads-Traffic)

(MIRA 11:3)

1. 1000-5 (1000/1000) 1000-5 (1000/1000) 1000-5 (1000/1000)
1000-5 (1000/1000) 1000-5 (1000/1000) 1000-5 (1000/1000)

ACCESSION NR: AT4048192

S/0000/64/000/000/1109/0115

AUTHOR: Baranova, V. G., Pankov, A. G., Khripin, E. G., Ilazyrina, R. V.,
Belyakova, V. D., Oboshchalova, N. V., Dolgova, N. A., Kravtzeva, M. F.,
Mishina, A. V., Ivoylova, M. A.

TITLE: The use of gas chromatography in the production of monomers for synthetic rubber

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po gazovoy khromato-
grafii, 2d, Moscow, 1962. Gazovaya khromatografiya (Gas chromatography), trudy
konferentsii. Moscow, Izd-vo Nauka, 1964, 109-115

TOPIC TAGS: gas chromatography, monomer production, two-stage chromatography,
integral volume detector, katharometer, hexene demethylation, synthetic rubber,
isopentane dehydration, flame ionization detector, isoprene polymerization

ABSTRACT: This is a survey of applied and applicable methods for chromatographic
analysis. For example, two-stage chromatography for contact separation of the follow-
ing components is described: H_2 , $N_2 + O_2$, CH_4 , C_2H_6 , C_3H_8 , C_4H_{10} , C_4H_8 and C_4H_6 .
Integral volume detectors with autorecorders are applicable where no very low concen-
trations are involved (e.g. the mixture from the catalytic dehydration of isopentane).

Card 1/3

2

L 1193-55

ACCESSION NR: AT404192

Chromatographic equipment with a katharometer is indicated for substances with a boiling point above 40-45°C, those which dissolve easily in alcohol or where low concentrations (less than 1%) have to be determined. This equipment is described and illustrated (chromatographic separation of complex mixtures from hexene demethylation, or of piperylene in isoprene concentrate). The sensitivity threshold may be increased by using a thermo-chemical monitor (from the Kh-2M apparatus). Standard calibration with an artificial mixture is required for this equipment. The calibration coefficients were found to be constant for considerable variations of concentration and some modification of test conditions. This set-up was also used to determine admixtures of butylenes and methyl-ethyl ether in divinyl of high purity and those of n-butylene in isobutylene. The sensitivity of gas chromatography may be increased by concentration of impurities to a degree where they can be detected, or by increasing the sensitivity of the detector. A flame-ionization detector has been used at the NIIMSK. This considerably facilitates control of product purity and makes possible determination of the basic centers of catalytic isoprene polymerization, appearing as early as the dehydration stage. Orig. art. has: 2 tables and 4 figures.

ASSOCIATION: None

Card

2/3

Submitted 10 Jan 68

MISHINA, A.V.

Internal linear uplifts in the Alpine basins of the central
Tien Shan. Sov. geol. 7 no 8 57-67 AG '64.

1. Moskovskiy gosudarstvennyy universitet.

MIF: 10 10

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6

SECRET

CONFIDENTIAL

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134620017-6"

MISHINA. A.V.

Types of Alpine structural forms in the troughs of Central Asia.
Vest.Mosk.un.Ser.4: Geol. 19 no.5:17-23 S-O '64. (MIRA 17:12)

Kafedra dinamicheskoy geologii Moskovskogo universiteta.

ZAKHAROVA, G.B.; MISHINA, D.B.; VEL'MOZHNYI, E.Ya.

Niobium and its alloys [from data in foreign journals]. TSvet.
met. 35 no.4:88-92 Ap '62. (MIRA 15:4:62)
(Niobium)

5(2)

AUTHOR:

Mishina, G. P.

SOV /10-05-2-18/72

TITLE:

A Variant of the Penfield Method for the Micro-determination of Water in Minerals (Variant metoda Penfil'da dlya mikro-opredeleniya vody v mineralakh)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, p 162 (USSR)

ABSTRACT:

The Penfield determination method was varied a little as to render it applicable for microanalyses. Since a fast separation of bound water can only be achieved at high temperatures, glowing heat is produced by a gas-oxygen flame and quartz tubes in which a temperature of 1600° can be obtained within 2 or 3 minutes. The enlarged part of the Penfield tube is cooled by solid carbonic acid in order to achieve a complete water condensation. In the presence of fluorides or iron oxide minium is added to the weighed portion, thus freeing only 0.2% of 1.8 - 3.3% fluorine and water in the glowing of phlogopite. By this method water was determined in mica, amphiboles, zeolites, and water containing glasses; here, a microanalytical scales VM-20 was used. The results obtained correspond closely to Penfield and Hecht-Almarin results

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A Variant of the Penfield Method for the Micro-
determination of Water in Minerals

NOV/12-1986 11:18/86

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii Akademii nauk SSSR (Institute of
the Geology of Ore Deposits, Petrography, Mineralogy, and
Geochemistry of the Academy of Sciences, USSR)

Card 2/2

3 (8)

AUTHORS:

Ostrovskiy, I. A., Mishina, G. P.,
Povilaytis, V. M.

SOV/20-126-1-52/69

TITLE:

The PT-projection of the Alumina-water System
(PT-proyektsiya sistemy kremnezem-voda)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3,
pp 645-646 (USSR)

ABSTRACT:

The system mentioned in the title is a limiting system for many silicate systems with volatile components which are of importance in petrology and mineralogy. At least 5 phases exist in this binary system at high temperatures: cristobalite, tridymite, quartz, liquid and vapor. It is (according to Ref 1) a multiple system with one degree of freedom. In general, such system must have 5 invariant points and 10 monovariant lines. The present case is simplified by the circumstance that all crystalline phases are of the same chemical composition, and only 3 monovariant reactions (1)-(3) are possible between the phases. In the reactions (4)-(6) the liquid and gaseous phases do not take part, so that the equilibria are degenerated. This simplifies very much the building-up of a basic scheme for the system mentioned in

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The PT-projection of the Alumina-water System

SOV/20-126-1-50/62

the title (Fig 1). All 3-phase monovariant equilibria are stable in this scheme. This is in agreement with the experiment. In the present case, the degenerated equilibria are stable on both sides of the invariant points. The corresponding curves pass over into one another without changing their directions. The variant, in which the equilibrium tridymite + + gas = melt is unstable, is excluded from consideration. An experiment, however, makes it easily clear that tridymite can coexist with the melt. As the experimental PT-diagram of the mentioned system (Ref 3) is incomplete, and does not agree with the theoretical scheme (Fig 1), the authors achieved some precision and completion by their experiments. The resulting experimental PT-diagram corresponds to the theoretical scheme (Fig 1). Figure 2 shows this experimental diagram (Refs 3, 4). A comparison of this diagram with the material found by other investigators shows differences in the position of various points and lines. There are 2 figures and 4 references, 1 of which is Soviet.

Card 2/3

The PT-projection of the Alumina-water System

30V/20-126-3-52/69

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralologii i geokhimii (Institute for the Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry)

PRESENTED: March 30, 1959, by D. S. Korzhinskiy, Academician

SUBMITTED: March 28, 1959

Card 3/3

MISHINA, I., slogan'

Cradle for hanging gutters. Na stroi. Mosk. 2 no.6:26 Je '59.
(MIRA 12:8)

1. Stroitel'nyy uchastok No.09 Mosstroya No.8.
(Gutters)